

Notice of Allowability

Application No.

09/608,341

Applicant(s)

DOUCEUR ET AL.

Examiner

Art Unit

Mitra Kianersi

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/09/2006.
2. ☒ The allowed claim(s) is/are 17-22 and 56-61.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 10/9/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JASON CARDONE
SUPERVISORY PATENT EXAMINER

Allowable Subject Matter

The rejections have been overcome by the amendment and remarks and that the pending claims 17-22 and 56-61 are in condition for allowance.

Claims 117-22 and 56-61 are allowed.

The following is an examiner's statement of reasons for allowance:

The primary reason for the allow of claims 17-22 and 56-61 are:

The above-mentioned claims are patentable because no pertinent prior art could be found which discloses the current limitations of Allowable Subject, the independent claim 17 as amended, and also claim 56 with similar elements recite a) one or more resources that can be consumed by one or more agents; and b) a handle administrator configured to administer a handle system in which handles to the one or more resources are provided to the agents and can be dereferenced into pointers to the one or more resources, the handle system comprising more than two states for a handle, the states comprising: c) an assigned state in which a handle is associated with a resource and can be dereferenced into a pointer to that resource d) an unassigned state in which the handle is not associated with a resource and cannot be dereferenced into a pointer to any resources e) a suspended state in which the handle is associated with a resource but cannot be dereferenced into a pointer to any resources. There are four actions that can cause transition between the multiple states. From the unassigned state, a handle can be assigned so that it assumes the assigned state. When in the assigned state, a handle can be released so that it assumes the unassigned state. Additionally, when in the assigned state, a handle can be suspended so that it assumes the suspended state. Once in the suspended state, a handle can be reinstated so that it assumes the assigned state. Additionally, in the suspended state, a handle can be released so that it assumes the unassigned state. Having the suspended state advantageously enables certain operations to be conducted which, in previous handle systems were impossible to implement. An exemplary operation is a two-phase commit. In a two phase, commit operation, two or more agents are each asked to suspend a handle associated with a particular resource (phase 1). If all of the agents can successfully suspend their handles, then

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all of the handles are released (phase 2). If any agent is unable to suspend its handle, all of the handles are reinstated so that they assume the assigned state. f) providing one or more resources that can be consumed by one or more agents; g) providing a handle administrator configured to administer a handle system in which handles to the one or more resources are provided to the agents and can be dereferenced into pointers to the one or more resources, the handle system comprising more than two states for a handle, the states comprising: h) an assigned state in which a handle is associated with a resource and can be dereferenced into a pointer to that resource; l) an unassigned state in which the handle is not associated with a resource and cannot be dereferenced into a pointer to any resources; j) a suspended state in which the handle is associated with a resource but cannot be dereferenced into a pointer to any resources.

A three state handle system is implemented by incorporating a suitable field in a handle database that is used to manage the handles. The incorporated field can be a flag that is set to indicate that a particular handle has been suspended. In another embodiment, no additional database fields are necessary to implement the three state handle system. Here, a handle database includes a field for handle values. The handle value is the value that is given to an agent when it desires access to a resource. In this embodiment, when a handle is suspended, a value is added to the handle value to yield a resultant value. When an agent presents the original handle value to access the handle's associated resource, the handle administrator can check the validity of the presented handle value by comparing it against the resultant handle value. Since the two compared handle values do not match, the handle is treated as an invalid handle. To reinstate a handle from the suspended state into the assigned state, the value that was originally added to the handle value is subtracted from the handle value to yield the original handle value. Now, when an agent presents the handle value it will compare favorably and thus be appropriately treated as a valid handle. Regarding claims 17 and 56, Draves US Patent No. 5,802,590) does not teach or suggest the combination of recitations (a) – (j) above. Draves instead is primarily concerned with providing secure access to computer resources. The

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present invention does not require a key or handle/key pair for the client process. The invention provide for a three-state handle administration system. The suspended state enables handles to be tentatively released from the assigned state. Suspended handles can be reinstated to their previously assigned state or permanently released into the unassigned state. Having this flexibility greatly facilitates the use of handle administration systems. For example, using the above described suspended state; two-phase commit operations can now be implemented whereas before, with other handle administration systems, they could not.

For these reasons, the rejection of remaining dependent claims 18-21 and 57-60 are also withdrawn.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Kianersi whose telephone number is (571) 272-3915. The examiner can normally be reached on 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cordone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mitra Kianersi
Dec/14/2006


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SUPERVISORY PATENT EXAMINER